

# Standards of Public Land Health

## Evaluation of 61001 REVUELTA CREEK Allotment

### [ 05/04/2006 ]

The Roswell Field Office conducted a Rangeland Health Assessment at one (1) study site within Revuelta Creek, allotment #61001. This assessment evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the study site vicinity. Existing monitoring data was incorporated into and in support of this field assessment. A summary of this assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
61001-IDSU-A001	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Revuelta Creek allotment #61001. Ten of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on one location were utilized to assess rangeland health of public land within this allotment. This allotment is a "C" (custodial) category due to small amounts of public land present.

Located in Quay County, this allotment only has 120 acres/48 hectares public land with equal portions of State and private. Ecological site is CP-2 Sandy Loam on a Quay fine sandy loam soil phase. Slope is 0 to 5 percent on upland alluvial fans derived principally from red bed material and is level to gently sloping with shallow inclusions adjacent to rocky benches and hills. Elevation ranges from 4,000 ft/1,212 m to 4,800 ft/1,454 m. Majority of indicators assessed rated None to Slight and Slight to Moderate indicating normal range of variability from established parameters. Only one previous quantitative data collection was conducted in 1991, therefore long-term study information was not utilized in this assessment. Dry conditions have impacted this allotment as evidenced by grasses and shrubs having a lack of current growth characters. This could also be due to these warm season species remaining in dormancy until favorable conditions prevail. No livestock were observed at evaluation. Blue grama (*Bouteloua gracilis*) and sideoats grama (*Bouteloua curtipendula*) were the two principal grasses observed with mesquite (*Prosopis glandulosa*) and juniper (*Juniperus* spp.) also found scattered throughout upland and draw areas. Adding to the shrub component is snakeweed (*Gutierrezia sarothrae*) and appears to be scattered as well. Invasive plants rates Moderate due to these shrub species' occurrence. Sod forming grasses such as blue grama and sideoats both are contributing to site protection and a favorable Biotic Standard rating. Ground cover of snakeweed is of concern, but it's cyclic nature is expected

Wildlife - Evaluation of the integrity of biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and address vegetative aspects of the ecological site description, such as functional/structural groups and plant mortality & decadence. Potential for mule deer (*Odocoileus hemionus*), pronghorn (*Antilocapra americana*) and lagomorph species does exist although none were observed at evaluation. Wildlife habitat and population indicators rated None to Slight as a result. These aspects contributing to the Biotic Standard indicate those animal communities are sustainable with adequate habitat present. No Special Status Species Habitat and Populations concerns occur on this allotment. Big game hunting is minimal here and limited due to private land owner permits. Access to isolated public land parcels is restricted because of huge amounts of private with no legal access. However one could access State land if permission was granted through private to get to public.

In the professional opinion of the Assessment Team, public land within Revuelta Creek, allotment #61001 meets Upland and Biotic standards. There are no Riparian areas within this allotment therefore this standard was not addressed. See site notes and recommendations for further information pertinent to this allotment.

**Recommendations:** Current livestock management practices should continue with prudent rotation to benefit cool and warm season vegetation. Public land is quite scattered and land-locked by private estate. Upon a more critical evaluation, ie, more regular monitoring/inspections must be employed if these tracts are to remain as part of BLM grazing allotments. These scattered tracts should be earmarked for disposal by way of land exchange or other method to acquire more contiguous blocks adjacent to larger public parcels if not previously identified.

Upland standards for this site indicate soil and hydrological attributes remain in proper functioning condition. In the course of rainfall events, erosion activity follows the norm and should continue. However due to recent dry conditions, a more comprehensive review should be taken to ensure that these rangelands remain resilient and productive both from a livestock and wildlife standpoint. As with all livestock grazing areas, proper distribution and strategic watering is vital to maintain adequate use and current carrying capacity. It appears the allottee has continued to follow proper grazing practices in this regard.

Sod forming grasses such as blue grama and sideoats both are contributing to site protection and a favorable Biotic Standard rating. Ground cover of snakeweed is of concern, but should follow it's cyclic tendencies. Monitoring in regards to evaluating mesquite cover and canopy must be continued. At present this species poses no real threat to perennial grass production, but should be measured to gauge any encroachment. If in the event mesquite does become a problem and inhibits forage production, measures could be taken to possibly treat those areas and curtail shrub invasion into these historical grasslands.

No Special Status Species Habitat or Population concerns occur here, but the wildlife populations should be sustainable. Free roaming herds of pronghorn and mule deer should sustain their populations and remain viable and healthy. Diverse genetic variability is vital to

survival of these ungulate species. These allotments presently allow for dispersal and suitable habitat.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 61001-IDSU-A001						
Legal Land Desc	NENW 11 0110N 0330E Meridian 23		Acreage		120	
Ecosite	070BY054NM SANDY LOAM CP-2		Photo Taken		Y	
Watershed	11080008030 REVUELTO					
Observers	ARTHUN/MCFERRAZ		Observation Date		05/22/2006	
County Soil Survey	NM676 N. QUAY		Soil Var/Taxad			
Soil Map Unit	QH		Soil Taxon Name		QUAY	
Texture Class	NM676 L		Soil Phase		QUAY	
Texture Modifier	NM676 LOAM					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	18.58		NOAA Growing Season Precipitation		15.56	
NOAA Avg Annual Precipitation	16.07		NOAA Avg Growing Season Precipitation		14.13	
Disturbances and Animal Use:	No livestock observed at evaluation.					
<b>Part 2. Attributes and Indicators</b>						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground					X
Comments:	25-30% is the current estimate-					

S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:						
S H B	Compaction Layer					X
Comments:	Road is only indication of compaction					
B	Functional/Structural Groups					X
Comments:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	40% is the current estimate-					
B	Annual Production				X	
Comments:	350-400 lbs/ac or kg/ha is the current estimate.					
B	Invasive Plants			X		
Comments:	Juniper-draws (disturbed sites) mesquite scattered.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	physical crusting is evident					
B	Wildlife Habitat					X
Comments:						

B	Wildlife Populations					X
Comments:						
B	Special Status Species Habitat					X
Comments: No special status species habitat concerns occur						
B	Special Status Species Populations					X
Comments: No special status species population concerns occur.						
<b>Part 3. Summary</b>						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						
Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	5	5
H	Hydrologic	0	0	0	4	7
B	Biotic	0	0	1	3	9
B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the <i>Does not Meet</i> column, Moderate becomes <i>May Need More Info</i> , and Slight to Moderate and None to Slight merge to form the <i>Meets</i> columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.						
Attribute	Rationale	Does Not Meet	May Need More Info	Meets		
Soil		0	0	10		
Hydrologic		0	0	11		
Biotic		0	1	12		
Site Notes: Trend plot set with re-bar and t-post; azimuth and study directions also recorded. Double sampling and step-point transects run. Mesquite is scattered; blue grama, sideoats, juniper and prickly pear observed. No livestock present but no signs of wildlife presently.						

## Determination of Public Land (Rangeland) Health for 61001 REVUELTA CREEK

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on these assessments, it is my determination that public land within Revuelta Creek, allotment #61001, meets the (1) Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ EDDIE BATESON  
Assistant Field Manager

09/12/2006  
Date